

U.S. Department of the Interior  
Bureau of Land Management  
White River Field Office  
73544 Hwy 64  
Meeker, CO 81641

## ENVIRONMENTAL ASSESSMENT

**NUMBER:** CO-110-2005-213-EA

**CASEFILE/PROJECT NUMBER** (optional): COC68657 and COC67528

**PROJECT NAME:** Pipeline Connection for Fee Well and Access Road

**LEGAL DESCRIPTION:** Sixth Principal Meridian, Colorado

T. 4 S., R. 104 W.,  
Sec. 13, W $\frac{1}{2}$ NW $\frac{1}{4}$ ;  
Sec. 25, W $\frac{1}{2}$ W $\frac{1}{2}$ ;  
Sec. 26, SE $\frac{1}{4}$ SE $\frac{1}{4}$ ;  
Sec. 35, E $\frac{1}{2}$ E $\frac{1}{2}$ .

T. 5 S., R. 104 W.,  
Sec. 1, SE $\frac{1}{4}$ SW $\frac{1}{4}$ ;  
Sec. 2, lot 1, SE $\frac{1}{4}$ NE $\frac{1}{4}$ .

**APPLICANT:** Pioneer Natural Resources USA Inc.

**ISSUES AND CONCERNS** (optional): None

### **DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

***Background/Introduction:*** Pioneer Natural Resources has applied for a right-of-way (ROW) to hook-up the Hazzard 6-1 well to an existing pipeline. This action will also require a ROW for the access road and will be an amendment to an existing ROW, COC67528.

***Proposed Action:*** The proposed action is for a pipeline connection to an existing pipeline (COC25122BR, Canyon Gas) for the Hazzard 6-1, which is a fee well and will be an amendment to Pioneer's existing ROW COC68657. The pipeline will be a 4-inch buried steel pipe, 1,000 feet in length with a ROW width of 30 feet encompassing 0.69 acres. The pipeline will be constructed along the uphill edge of the existing road.

For access, Pioneer proposes to use the Whiskey Creek Road. After a records search was conducted, it revealed there wasn't an existing ROW for Pioneer on this particular road;

therefore Pioneer will be required to obtain a ROW for the road, which will be an amendment to an existing ROW COC67528. The ROW length will be 16,000 feet with a ROW width of 30 feet encompassing 11.02 acres. The last 1,000 feet from the 16-2-5-104 well to the Hazzard 6-1 well will have to be upgraded in order to accommodate drilling operations.

In order to hold the lease, Pioneer needs to drill the Hazzard 6-1 well before November 30, 2005. They are waiting on approval from Colorado Oil and Gas Conservation Commission (COGCC) and then it will be the availability of a rig before they start drilling. They won't construct the pipeline until they have production on the well.

**No Action Alternative:** Under the no-action alternative there wouldn't be any impacts.

**ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD:** None

**NEED FOR THE ACTION:** An application has been received for a pipeline right-of-way and an access road.

**PLAN CONFORMANCE REVIEW:** The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Pages 2-49 thru 2-52

Decision Language: "To make public lands available for the siting of public and private facilities through the issuance of applicable land use authorizations, in a manner that provides for reasonable protection of other resource values."

**AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES /  
MITIGATION MEASURES:**

**STANDARDS FOR PUBLIC LAND HEALTH:** In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

## **CRITICAL ELEMENTS**

### **AIR QUALITY**

*Affected Environment:* The proposed action is not located within a thirty mile radius of any special designation air sheds or non-attainment areas. No long term impacts to air quality are anticipated.

*Environmental Consequences of the Proposed Action:* Exhaust from construction equipment will increase nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and carbon monoxide (CO) levels which can deteriorate air quality. Dry periods combined with gusty winds will temporarily increase fugitive dust levels, also reducing local air quality. However, given the short duration for construction of the proposed pipeline, no significant air quality concerns are anticipated.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* The operator will be responsible for complying with all local, state, and federal air quality regulations as well as provide documentation to the BLM that they have done so prior to construction on BLM lands.

All stockpiled soils on BLM surfaces will be wetted (during dry periods) to mitigate production of fugitive dust. BLM surfaces disturbed during construction will be promptly revegetated. Adequate ground cover (e.g. woody debris) must be applied immediately (BLM lands) to minimize surface exposure to eolian processes.

### **CULTURAL RESOURCES**

*Affected Environment:* The proposed access route, well tie pipeline and well pad location have been inventoried at the Class III (100% pedestrian) level (Baer et. al 2005, Compliance Dated 9/13/2005) with four resources identified in the proposed project area.

*Environmental Consequences of the Proposed Action:* One of the four sites identified during inventory has been previously impacted and largely destroyed by a previous project. One of the sites was previously impacted by construction of a pipeline but will not be impacted by new pipelines or the access road upgrade. One site is avoided completely and one site, a historic trash scatter, appears to be largely avoided by the project.

*Environmental Consequences of the No Action Alternative:* There would be no new impacts to cultural resources under the No Action Alternative

*Mitigation:* 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials

are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

## **INVASIVE, NON-NATIVE SPECIES**

*Affected Environment:* Several noxious weeds can be found in the area including: Cheatgrass, houndstongue, Canada thistle, hoary cress and burdock. The grazing permittee has been very proactive in weed management and the acreage infested with noxious weeds has been decreased significantly.

*Environmental Consequences of the Proposed Action:* Construction of the pipeline and upgrade of the road will disturb vegetation and soils creating suitable habitat for noxious weed growth and spread. Additionally the increase in construction equipment and support vehicles increases the opportunity for transportation and introduction of noxious weeds in the area. With proper weed management, including inventory, control and monitoring, noxious weeds are not expected to increase above that of the current situation. The seed mix associated with this action contains non-native species because these species have been found to establish easily, provide adequate soil protection and provide competition against noxious weeds, including cheatgrass. These species have not been found to interbreed with the adjacent native species or to move off site.

*Environmental Consequences of the No Action Alternative:* There would be no impacts.

*Mitigation:* The applicant is responsible for inventorying, treating and monitoring noxious weed outbreaks associated with this proposal.

1. No operations using chemical processes or other pollutants in their activities will be allowed to occur within 200 feet of any water bodies.
2. Surface disturbing activities would be required to avoid riparian/wetland habitat.
3. Locate and maintain sanitation facilities according to state regulations.
4. When preparing the site, all suitable topsoil should be stripped from the surface of the location and stockpiled for reclamation once the location is abandoned. When topsoil is stockpiled on slopes exceeding five percent, construct a berm or trench below the stockpile.
5. Sedimentation shall be diverted and/or run through catchment basins in order to protect surface waters.
6. All sediment control structures or disposal pits, will be designed to contain a 100-year, 6-hour storm event. Storage volumes within these structures will have a design life of 25 years.
8. All activity shall cease when soils or road surfaces become saturated to a depth of three inches unless otherwise approved by the Authorized Officer.
9. There shall be no mud blading of roads. Vehicles may be towed through the mud provided they stay within the original roadway.
10. Special design and reclamation measures may be required to protect scenic and natural landscape values. These design and measures may include transplanting trees and shrubs, mulching and fertilizing disturbed areas, use of low profile permanent facilities, and painting to minimize visual contrasts. Surface disturbing activities may be moved up to 200 meters to avoid sensitive areas or to reduce the visual affects of the proposal. These measures would be applied to the following VRM Class II and III areas: Canyon Pintado National Historic District; Highways 13, 40, 64, and 139 corridors; Viewsheds in the Blue Mountain/ Moosehead GRA; White River Corridor; Douglas and Baxter Pass divide; Cathedral Bluffs; and VRM Class II areas around Meeker. These measures may also be applied to other areas on a case-by-case basis.
11. All above ground facilities shall be painted to blend in with the surrounding environment.
12. All disturbed areas will be contoured to blend with the natural topography. Blending is defined as reducing form, line, and color contrast associated with the surface disturbance. In visually sensitive areas and WSAs, all disturbed areas shall be contoured to match the original topography. Matching is defined as reproducing the original topography and eliminating form, line, and color caused by the disturbance as much as possible.

## **ROAD CONSTRUCTION AND MAINTENANCE**

13. Base road design criteria and standards on road management objectives such as traffic requirements of the proposed activity and the overall transportation plan, economic analysis, safety requirements, resource objectives, and minimizing damage to the environment.
14. Locate roads so as to minimize their influence on riparian areas and, when stream crossing is necessary, design the approach and crossing perpendicular to the channel. Locate the crossing where the channel is well-defined, unobstructed and straight.
15. Locate roads on stable positions (e.g., ridges, natural benches, and flatter transitional slopes near ridges and valley bottoms). Implement extra mitigation measures when crossing areas of unstable or fragile soils.
16. Avoid headwalls, midslope locations on steep, unstable slopes, seeps, old landslides, slopes in excess of 70 percent, and areas where the geologic bedding planes or weathering surfaces are inclined with the slope.
17. Locate roads to minimize heights of cutbanks. Avoid high, steeply sloping cutbanks in highly fractured bedrock.
18. Locate roads on well-drained soil types. Avoid wet areas.
19. Sloping the road base to the outside edge for surface drainage is normally recommended for local spurs or minor collector roads where low-volume traffic and lower traffic speeds are anticipated. This is also recommended in situations where long intervals between maintenance will occur and where minimum excavation is wanted. Outsloping is not recommended on gradients greater than eight to 10 percent.
20. Sloping the road base to the inside edge is an acceptable practice on roads with gradients more than 10 percent and where the underlying soil formation is very rocky and not subject to appreciable erosion or failure.
21. Crown and ditching is recommended for arterial and collector roads where traffic volume, speed, intensity and user comfort are considerations. Gradients may range from two to 15 percent as long as adequate drainage away from the road surface and ditchlines is maintained.
22. Minimize excavation through use of balanced earthwork, narrowing road width, and endhauling where slopes are greater than 60 percent.
23. Surface roads if they will be subject to traffic during wet weather. The depth and gradation of surfacing will be determined by traffic type, frequency, weight, maintenance objectives, and the stability and strength of the road foundation and surface materials.
24. Provide vegetative or artificial stabilization of cut and fill slopes in the design process. Avoid establishment of vegetation where it inhibits drainage from the road surface or where it restricts safety or maintenance.

25. When roads are located in low-lying areas, ensure that the road surface is constructed above the adjacent ground surface.
26. Avoid sidecasting where it will adversely affect water quality or weaken stabilized slopes.
27. Provide for erosion-resistant surface drainage prior to fall rain or snow.
28. Improve flat gradients to a minimum of two percent or provide raised subgrade sections to avoid saturation of the road base.
29. Reconstruct culvert catchbasins to specifications (See BLM Manual IX.D and F). Catchbasins in solid rock need not be reconstructed provided water flow is not restricted by soil, rock, or other debris.
30. Identify potential water problems caused by off-site disturbance and add necessary drainage facilities.
31. Identify ditchline and outlet erosion caused by excessive flows and add necessary drainage facilities and armoring.
32. Replace undersized culverts and repair or replace damaged culverts and downspouts.
33. Add additional full-rounds, half-rounds, and energy dissipaters as needed.
34. Correct special drainage problems (e.g., high water table, seeps) that affect stability of subgrade by using perforated drains, geotextiles, or drainage bays.
35. Eliminate undesirable berms that retard normal surface runoff.
36. Surface inadequately surfaced roads that are to be left open to public traffic during wet weather.
37. Roadside brushing should be done in a way that prevents disturbance to root systems (i.e., avoid using excavators for brushing).
38. Leave abandoned roads in a condition that provides adequate drainage without further maintenance.
39. Close abandoned roads to traffic. Physically obstruct the road with a gate or as many large berms, trenches, logs, stumps, or rock boulders as necessary to accomplish permanent closure.
40. When seasonal activity is completed and road closure is not necessary, the road surface should be crowned, outsloped, insloped, or water-barred.

41. Remove berms from the outside edge of road where runoff is channeled.
42. Maintenance should be performed to conserve existing surface material, retain the original crowned or outsloped self-draining cross section, prevent or remove rutting berms (except those designed for slope protection) and other irregularities that retard normal surface runoff. Avoid wasting loose ditch or surface material over the shoulder where it can cause stream sedimentation or weaken slump-prone areas. Avoid undercutting backslopes.
43. Promptly remove slide material when it is obstructing road surface and ditchline drainage. Save all soil or material useable for reclamation and stockpile for future reclamation needs. Use remaining slide material for needed road improvement or place in a stable waste area. Avoid sidecasting of slide material where it can damage, overload, saturate embankments, or flow into downslope drainage courses. Reestablish vegetation in areas where more than 50 percent of vegetation has been destroyed due to sidecasting.
93. Construction width shall include the existing road. The pipeline shall be located two to three feet from the edge of the ditch along the existing road. The existing road shall be on the working side of the trench.
94. Right-of-ways will use areas adjoining or adjacent to previously disturbed areas whenever possible, rather than traverse undisturbed communities.
95. The pipeline will be buried to provide a minimum cover of 36 inches through normal terrain. The pipeline will be buried deep enough to avoid problems with irrigation ditches, canals, potential irrigation areas and existing pipelines, as designated by the authorized officer. In rocky areas, a minimum cover of 24 inches will be provided. In areas next to or crossing access roads, the pipeline shall be buried with a minimum of four feet of cover in alluvial areas and three feet of cover in rocky areas.
96. Water bars or dikes shall be constructed on all of the rights-of-way, and across the full width of the disturbed area, as directed by the authorized officer.
97. Slopes within the disturbed area shall be stabilized by non-vegetative practices designed to hold the soil in place and minimize erosion. Vegetative cover shall be reestablished to increase infiltration and provide additional protection from erosion.
98. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff.
188. Seed species used in reseeding disturbed areas will be based on the seed mixes identified in table B1 and B2. These mixes are based on Ecological Sites as determined by soils. Only native plant species will be used for reseeding of disturbed areas within the Blue Mountain/Moosehead Geographic Reference Area, Wilderness study Areas, and within designated Areas of Critical Environmental Concern. Native plant species would be strongly encouraged in the remainder of the Resource Area for reseeding disturbed areas that are not threatened by establishment of



exotic or noxious plant species. Naturalized plant species will be allowed for reseeding on "at risk" and "unhealthy" rangelands and grazable woodlands.

189. Leave the disturbed area in a condition that provides drainage with no additional maintenance.

**Table B-1. Standard Seed Mixes**

Seed Mix #	Species (Variety)	Lbs PLS/ Acre	Ecological Sites
4	Western wheatgrass (Rosanna)	2	Gravelly 10"-14", Pinyon/Juniper Woodland, Stony Foothills, 147 (Mountain Mahogany)
	Pubescent wheatgrass (Luna)	3	
	Crested wheatgrass (Nordan)	2	
	Orchardgrass (Paiute)	1	
	Indian ricegrass (Nezpar)	1	
	Fourwing saltbush (Wytana)	1	
	Alternates: Alfalfa (Nomad or Ladak)		

## MIGRATORY BIRDS

*Affected Environment:* The proposed pipeline, which is located along an existing road, is encompassed by big sagebrush, greasewood, and rabbitbrush with an understory comprised of various forbs and grasses. Younger-aged pinyon/juniper stands are located along the adjacent slopes which surround the project area. These communities typically provide nesting habitat for several species of migratory birds during the breeding season (May, June and July) including blue-gray gnatcatcher and meadowlark. Those bird populations identified as having higher conservation interest (i.e., Rocky Mountain Bird Observatory, Partners in Flight program) that are commonly found in these habitats include Brewer's sparrow (at low densities), juniper titmouse, and black-throated gray warbler. None of the species associated with these communities are narrowly restricted in abundance, distribution, or habitat preference.

*Environmental Consequences of the Proposed Action:* It is unlikely the implementation of this project would have any measurable influence on the abundance or distribution of breeding migratory birds even at the smallest landscape scale. Construction of the pipeline will remove <1 acre of big sagebrush habitat, all of which lies adjacent to an existing roadway. These disturbed habitats typically assume little use for reproductive functions (1 breeding pair per hectare). With the exception of Brewer's sparrow, those species of higher concern are associated with pinyon/juniper woodlands. These woodlands are located adjacent to the proposed pipeline and will not be directly involved with this action.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* None

## **THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)**

*Affected Environment:* There are no threatened, endangered or sensitive species that are known to inhabit or derive important benefit from the project area.

*Environmental Consequences of the Proposed Action:* The proposed action would have no conceivable affect on animals listed, proposed, candidate, or petitioned for listing under the Endangered Species Act. Similarly, there are no animals considered sensitive by BLM that would be potentially influenced by this action.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* None

*Finding on the Public Land Health Standard for Threatened & Endangered species:* The proposed and no-action alternative would have no effective influence on special status species or associated habitat and would, therefore, have no potential to influence the status of applicable land health standards.

## **WASTES, HAZARDOUS OR SOLID**

*Affected Environment:* There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites included in the project area.

*Environmental Consequences of the Proposed Action:* No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated. Solid wastes would be properly disposed of.

*Environmental Consequences of the No Action Alternative:* No hazardous or other solid wastes would be generated under the no-action alternative.

*Mitigation:* The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

## **WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)**

*Affected Environment:* The proposed pipeline and access road is located entirely within the Whiskey Creek watershed. Whiskey Creek is a tributary to Evacuation Creek (tributary to the White River in Utah) and is situated within stream segment 22 of the White River Basin.

Stream segment 22 of the White River Basin is comprised of all tributaries to the White River, including all wetlands, lakes and reservoirs, from a point immediately above the confluence with Douglas Creek to the Colorado/Utah boarder, except for specific listings in segment 23.

A review of the Colorado's 1989 Nonpoint Source Assessment Report (plus updates), the 305(b) report, the 303(d) list and the White River Resource Area RMP was done to see if any water quality concerns have been identified. The State has classified stream segment 22 of the White River Basin as "Use Protected" and further designated it as beneficial for the following uses: Warm Aquatic Life 2, Recreation 1b, and Agriculture. The antidegradation review requirements in the Antidegradation Rule are not applicable to waters designated use-protected. For those waters, only the protection specified in each reach will apply. For segment 22, minimum standards for four parameters have been listed. These parameters are: dissolved oxygen = 5.0 mg/l, pH = 6.5 - 9.0, Fecal Coliform = 325/100 ml, and 205/100 ml E. coli. For segment 13b, minimum standards for four parameters have also been listed. These parameters are: dissolved oxygen = 5.0 mg/l, pH = 6.5 - 9.0, Fecal Coliform = 200/100 ml, and 125/100 ml E. coli.

*Environmental Consequences of the Proposed Action:* Construction of the pipeline and/or upgrades of the existing road will result in temporary exposure of soils to erosional processes. Heavy equipment used during construction combined with the removal of ground cover will increase erosive potential due to runoff (overland flows) and raindrop impact during storm events. Elevated erosion rates in the upland portions of the affected watersheds will result in increased sedimentation down stream adversely impacting stream channel morphology.

Local ground water will be vulnerable to contamination if a spill or leak results from the pipeline or construction equipment.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* All BLM surfaces disturbed during construction will be promptly revegetated and adequate ground cover must be immediately applied to minimize erosion. The use of biodegradable fabric (e.g. jute) may be necessary to stabilize certain areas highly susceptible to erosion.

All upgrades to the existing BLM road will strictly adhere to the surface operating standards and guidelines for oil and gas exploration and development as outlined in the "Gold Book" 2005 fourth edition. Any upgrades/repairs to the ROW will be upgraded or repaired at the expense of the operator.

To mitigate contamination of local ground water, environmentally unfriendly substances (e.g. diesel) must not be allowed to infiltrate soils. The use of impermeable matting under equipment is suggested on BLM surfaces to intercept such contaminants prior to contacting soils.

## **WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)**

*Affected Environment:* There are no wetlands or riparian zones potentially influenced by the proposed action. The proposed pipeline is located along an ephemeral reach of Whiskey Creek which only contains flowing water following heavy precipitation and spring runoff.

*Environmental Consequences of the Proposed Action:* None

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* None

*Finding on the Public Land Health Standard for riparian systems:* Because the proposed and no-action alternatives would have no reasonable probability of influencing wetlands or riparian areas, application of the land health standards is not applicable.

## **CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:**

No ACEC's, flood plains, prime and unique farmlands, Wilderness, or Wild and Scenic Rivers, threatened, endangered or sensitive plants exist within the area affected by the proposed action. For threatened, endangered and sensitive plant species Public Land Health Standard is not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status plants. There are also no Native American religious or environmental justice concerns associated with the proposed action.

## **NON-CRITICAL ELEMENTS**

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

## **SOILS (includes a finding on Standard 1)**

*Affected Environment:* The following data is a product of an order III soil survey conducted by the Natural Resource Conservation Service (NRCS) in Rio Blanco and Garfield Counties. The accompanying table highlights important soil characteristics. A complete summary of this information can be found at the White River Field Office.

Rio Blanco County Soils:

Soil Number	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
41	Havre loam	0-4%	Foothill Swale	<4	Medium	Slight	>60

Soil Number	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
48	Kobar silty clay cloam	3-8%	Deep Clay Loam	<2	Medium to rapid	Moderate	>60
65	Pinelli clay laom	3-12%	Clayey Foothills	2-4	Medium to rapid	Moderate to high	>60
74	Rentsac-Moyerson-Rock Outcrop complex	5-65%	PJ Woodlands/Clayey Slopes	<2	Medium	Moderate to very high	10-20

#### Garfield County Soils:

Soil Number	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
44	Happle very channery sandy loam	3-25%	Rolling Loam ecological site #298	0-2.0	Slow	severe	40-60
65	Torriorthents, cool-Rock outcrop complex	35 - 90%	Pinyon/Juniper ecological site	2-8.0	Very Rapid	very severe	4-60
76	Wrayha-Veatch-Rabbitex complex	12-45%	Mountain Pinyon ecological site #448.	0-2.0	Medium-Rapid	very severe	20-40

The proposed pipeline will not encounter any fragile soils. However, the existing road encounters CSU-1 "fragile soils" for approximately 0.52 miles roughly 1.30 miles above junction with Rio Blanco County road 25. As outlined in the White River ROD/RMP, All surface disturbing activities (upgrades to existing road) encountering "fragile soils" will be allowed only after an engineered construction/reclamation plan is submitted by the operator and approved by the Area Manager. The following items must be addressed in the plan:

1. How soil productivity will be restored.
2. How surface runoff will be treated to avoid accelerated erosion such as riling, gullyng, piping, and mass wasting.

*41-Havre loam* (0 to 4 percent slopes) is a deep, well drained soil found on flood plains and low stream terraces. It formed in calcareous alluvium. The native vegetation is mainly low shrubs and grasses.

Typically, the surface layer is light brownish gray loam 21 inches thick. The upper 19 inches of the underlying material is stratified, light gray loam and silty clay loam, and the lower part to a depth of 60 inches or more is stratified loam and sandy loam. In some areas the surface layer is clay loam of fine sandy loam. Permeability of the Havre soil is moderate. Available water capacity is high. Effective rooting depth is 60 inches or more. Runoff is medium, and the hazard of water erosion is slight. Small areas of this soil are subject to brief periods of flash flooding late in the spring and in summer. If this unit is used for urban development, sanitary

facilities, and roads, special designs are needed to compensate for the hazard of flooding. Dikes and channels that have outlets for floodwater can be used to protect buildings and onsite sewage disposal systems from flooding. Buildings and roads should be designed to offset the limited ability of the soil in this unit to support a load.

*44 – Happle very channery sandy loam* (3 to 12 percent slopes) is a deep, well drained soil located on alluvial fans. It formed in alluvium derived dominantly from the Green River shale formation. The native vegetation is mainly sagebrush, grasses, and forbs. Typically, the surface layer is light gray very channery sandy loam about 7 inches thick. The upper part of the underlying material is very pale brown very channery sandy loam about 7 inches thick. The next part is light gray very channery sandy clay loam about 18 inches thick. The lower part of the underlying material to a depth of 60 inches or more is light gray extremely channery coarse sandy loam. Permeability is moderate in the Happle soil. The available water capacity is low. The effective rooting depth is 60 inches or more. Runoff is slow, and the hazard of water erosion is severe. This soil is only fair source of reconstruction material for drastically disturbed areas because of the limited available water capacity. The capability classification is 4e, non-irrigated. This unit is in the Rolling Loam ecological site #298.

*48-Kobar silty clay loam* (3 to 8 percent slopes) is a deep, well drained soil located on alluvial valley floors and on fans. It formed in calcareous alluvium derived dominantly from shale. Typically, the surface layer is grayish brown silty clay loam about 3 inches thick. The next layer is grayish brown silty clay loam about 9 inches thick. The underlying material to a depth of 60 inches or more is light brownish gray silty clay that has some gypsum crystals. In some areas the surface layer is clay loam or silty clay. Permeability of the Kobar soil is slow. Available water capacity is high. Effective rooting depth is 60 inches or more. Runoff is medium to rapid, and the hazard of water erosion is moderate. Practices that can be used to control erosion include early fall seeding, stubble-mulch tillage, and construction of terraces, diversions, and grassed waterways. All tillage should be on the contour or across the slope. On long slopes, chiseling the stubble in fall slows runoff and reduces soil loss in years when the snow melts rapidly while the soil is still frozen.

*61 – Rock outcrop-Torriorthents complex* (15 to 90 percent slopes) is located on south-facing slopes of mountains, hills, ridges, and canyon sides in extremely rough and eroded areas. It supports only sparse vegetation. Rock outcrop consists of barren escarpments, ridge caps, and rocky points of sandstone, shale, limestone, or siltstone. The escarpments commonly are 3 to 100 feet high and 25 to 2,500 feet long.

Torriorthents commonly are very shallow over hard bedrock. These soils are well drained. They formed in residuum and colluvium derived from sandstone, shale, or siltstone. No single profile is typical of Torriorthents, but a common profile in the survey area has a surface layer of pale brown channery loam about 2 inches thick. The underlying material is very channery loam about 11 inches thick. Sandstone is at a depth of about 13 inches. Runoff is very rapid in areas of this unit, and the hazard of water erosion is very severe. If this unit is used for development of mineral resources, the main limitations are the slope and the Rock outcrop. Access roads should be designed with an adequate cut-slope grade, and drains are needed to control surface runoff and keep soil losses to a minimum.

65 – *Torriorthents, cool-Rock outcrop complex* (35 to 90 percent slopes) is located on steep, mainly south-facing slopes of mountains, hills, ridges, and canyonsides in extremely rough and eroded areas. The vegetation is mainly sparse shrubs and grass and some twoneedle pinyon and juniper. Torriorthents commonly are very shallow to deep over hard or soft bedrock. These soils are well drained to somewhat excessively drained. They formed in residuum and colluvium derived from sandstone, shale, limestone, or siltstone. No single profile is typical of Torriorthents, but a common profile in the survey area has a surface layer of pale brown channery loam about 2 inches thick. The underlying material is very channery loam about 11 inches thick. Sandstone is at a depth of about 13 inches. In some areas the surface layer is stony or flaggy. Depth to shale or sandstone ranges from 4 to 60 inches. The soils are calcareous throughout. Permeability is moderate or moderately rapid in the Torriorthents. The available water capacity is very low to moderate. The effective rooting depth is mainly 4 to 60 inches. Runoff is very rapid, and the hazard of water erosion is very severe.

Rock outcrop consists of barren escarpments, ridge caps, and rocky points of sandstone, shale, limestone, or siltstone. The escarpments commonly are 3 to 50 feet high and 25 to 2,500 feet long. In areas used for development of mineral resources, the main limitations are the shallow depth to rock, the Rock outcrop, and the slope. Areas of the unit are not stable and are subject to mass movement. Wet areas and sloping rock formations should be identified prior to any construction. Access roads should be designed with an adequate cut-slope grade, and drains are needed to control surface runoff and keep soil losses to a minimum.

74-*Rentsac-Moyerson-Rock outcrop complex* (5 to 65 percent slopes) is located on foothills and ridges. The native vegetation is mainly pinyon and juniper trees with an understory of shrubs and grasses. The Rentsac soil is shallow and well drained. It formed in residuum derived dominantly from sandstone. Typically, the surface layer is grayish brown channery loam about 5 inches thick. The next layer is brown very channery loam about 4 inches thick. The underlying material is very pale brown extremely flaggy loam 7 inches thick. Sandstone is at a depth of 16 inches. Depth to sandstone ranges from 10 to 20 inches. In some areas the surface layer is quite variable in texture. Permeability of the Rentsac soil is moderately rapid. Available water capacity is very low. Effective rooting depth is 10 to 20 inches. Runoff is medium, and the hazard of water erosion is moderate to very high.

The Moyerson soil is shallow and well drained. It formed in residuum derived dominantly from shale. Typically, the surface layer is light gray stony clay loam about 2 inches thick. The next layer is gray clay loam about 8 inches thick. The underlying material is gray clay 7 inches thick. Shale is at a depth of 17 inches. Depth to shale ranges from 10 to 20 inches. In some areas the surface layer is silty clay loam, silty clay, light clay, or bouldery clay loam. Permeability of the Moyerson soil is slow. Available water capacity is low. Effective rooting depth is 10 to 20 inches. Runoff is medium to rapid, and the hazard of water erosion is very high. Rock outcrop consists of ridge caps, ridge points, and long vertical bluffs 3 to 25 feet thick and 25 to 1,500 feet long. This unit is poorly suited to urban development. The main limitations are steepness of slope and the shallow depth to bedrock.

76 – Wrayha-Veatch-Rabbitex complex (12-45 percent slopes) is primarily located on side slopes of mountains and ridges. The native vegetation is mainly two needle pinyon, juniper, serviceberry, Gamble's oak and cool-season grasses. The Wrayha soil is deep and well drained. Permeability is slow and the available water capacity is high. The effective rooting depth is 60 inches or more. Runoff is rapid, and the hazard of water erosion is very severe. The Veatch soil is moderately deep and is well drained. Permeability is moderate in the Veatch soil. The available water capacity is low. The effective rooting depth is 20 to 40 inches. Runoff is medium, and the hazard of water erosion is very severe. The Rabbitex soil is deep and well drained. Permeability is moderate in the Rabbitex soil. The available water capacity also is moderate. The effective rooting depth is 60 inches or more. Runoff is rapid, and the hazard of water erosion is very severe. The soils in this unit are only a fair source of reconstruction material for drastically disturbed areas. Limitations include excess lime and high content of clay in areas of the Wrayha soil, excess lime and large stones in areas of the Veatch soil, and excess lime in areas of the Rabbitex soil.

*Environmental Consequences of the Proposed Action:* Construction of the proposed pipeline and upgrades of the existing road will decrease ground cover leaving soils exposed to erosional processes. Accelerated erosion rates will occur along disturbed areas if proper mitigation measures are not followed. Because the upgrades to the proposed access are not on fragile soils (CSU-1) the stipulation does not apply. If Pioneer requires upgrades to additional (i.e. for approximately 0.52 miles roughly 1.30 miles above junction with RBC road 25) then CSU-1 would apply.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* Comply with "Gold Book" surface operating standards for road upgrades and pipeline construction. Any surface disturbing activities located on CSU-1 "fragile soils" will require an engineered construction/reclamation plan to be submitted by the operator and approved by the Area Manager. The following items must be addressed in the plan:

1. How soil productivity will be restored.
2. How surface runoff will be treated to avoid accelerated erosion such as riling, gullying, piping, and mass wasting.

Revegetate all disturbed BLM surfaces following construction with the appropriate seed mix as outlined in the vegetation section of this document. Flow deflectors and sediment traps (woody debris) must also be utilized on BLM lands in attempts to mitigate erosive potential of overland flows.

*Finding on the Public Land Health Standard for upland soils:* At the present time, soils in the vicinity of the proposed action exhibit infiltration and permeability rates that are appropriate to soil type, landform, climate, and geologic processes. The proposed actions will cause decreases in both infiltration and permeability rates due to soil compaction and loss of vegetal cover. However, with proper mitigation soil health will continue to meet standards.



## **VEGETATION** (includes a finding on Standard 3)

*Affected Environment:* The pipeline and access route are within the big sagebrush vegetation type. The big sagebrush communities are composed of Wyoming big sagebrush, Douglas rabbitbrush, greasewood and a variety of grasses and forbs. These communities are mature, boarding on decadent, with decreased understory composition and production.

*Environmental Consequences of the Proposed Action:* There would be complete vegetation and soil disturbance along the pipeline right of way. Following seeding, vegetation is expected to establish on the site within three years and provide adequate protection for soils. Sagebrush is expected to invade the reclaimed area within 10. The non-native plants proposed within the seed mix would act as a nurse crop and over time would be replaced by species found in the adjacent plant communities. The crested wheat grass is expected to be tenacious and found on site over a long period of time, but is not expected to move into the adjacent plant communities.

*Environmental Consequences of the No Action Alternative:* There would be no impacts.

*Mitigation:* Same as the Invasive Plant section.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Following reclamation the plant communities would meet the standard for plants in terms of composition, production and resistance to noxious weeds.

## **WILDLIFE, AQUATIC** (includes a finding on Standard 3)

*Affected Environment:* There is no aquatic wildlife or habitat potentially influenced by the proposed action. The proposed pipeline is located along an ephemeral reach of Whiskey Creek which does not support aquatic wildlife.

*Environmental Consequences of the Proposed Action:* None

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* None

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Terrestrial): Because the proposed and no-action alternatives would have no reasonable probability of influencing aquatic habitats, application of the land health standards is not applicable.

## **WILDLIFE, TERRESTRIAL** (includes a finding on Standard 3)

*Affected Environment:* The proposed pipeline, located along an existing road, would result in the removal of approximately 1 acre of woody forage. These big sagebrush – pinyon/juniper communities are typically occupied by big game from fall into early winter and again during the spring months (April-May).

While raptors may opportunistically forage throughout the area, the younger-aged pinyon/juniper stands located adjacent to the project area typically do not provide adequate nesting substrate for woodland raptors. Nongame bird communities within the area are representative of big sagebrush shrublands and xeric pinyon-juniper woodlands with no apparent deficiencies in composition or abundance.

Small mammal populations are poorly documented, however, the 14 or so species that are likely to occur in this area display broad ecological tolerance and are widely distributed throughout the Great Basin and/or Rocky Mountain regions. No narrowly distributed or highly specialized species or subspecific populations are known within the project area.

*Environmental Consequences of the Proposed Action:* Short-term effects to local deer and elk herds may include displacement of individuals during pipeline installation; however, no long-term effects to seasonal distribution or movement are expected. Much of the proposed surface disturbance would occur in situations where habitat utility is currently compromised by existing features (well-traveled roadways) or that support limited woody forage production (e.g., pinyon-juniper encroached big sagebrush bottomlands). Reduction in the herbaceous and woody forage base for big game would be discountable. Short term reductions in the herbaceous forage base on pipeline acreage would be largely regained through reclamation by the following growing season. Similarly, the loss of forage and cover for non-game animals would be negligible at the local scale.

*Environmental Consequences of the No Action Alternative:* No immediate action would be authorized that would have potential to adversely modify terrestrial wildlife habitats or be capable of disrupting animal behavior within the project area.

*Mitigation:* Pipeline will be reclaimed with the appropriate seed mix as state in Invasive Plant section.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Aquatic): The project area presently meets the public land health standards for terrestrial animal communities. The proposed action and no-action alternatives would have negligible short and long term influence on the utility or function of big game, raptor, or nongame habitats in the vicinity of these sites. The overall shrubland communities comprising this landscape retain sufficient character to support viable populations of resident game and nongame species. Thus, in an overall context, lands affected by the no-action or proposed action would continue to meet the land health standard for terrestrial animals.

**OTHER NON-CRITICAL ELEMENTS:** For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation		X	
Cadastral Survey	X		
Fire Management	X		
Forest Management		X	
Geology and Minerals		X	
Hydrology/Water Rights	X		
Law Enforcement		X	
Noise		X	
Paleontology			X
Rangeland Management			X
Realty Authorizations			X
Recreation		X	
Socio-Economics		X	
Visual Resources			X
Wild Horses	X		

## PALEONTOLOGY

*Affected Environment:* The proposed access route, well tie pipeline and well pad location are located in areas mapped as the Mesa Verde Group and Wasatch Formations (Tweto 1979). The BLM has classified both formations as Condition I formations meaning they are known to produce scientifically important fossil resources. However, the majority of the project appears to be located in an area where quaternary alluviums might mask the formations.

*Environmental Consequences of the Proposed Action:* Should it become necessary to excavate deep enough to impact the underlying rock formations there is a potential to impact scientifically important fossil resources.

*Environmental Consequences of the No Action Alternative:* There would be no new impacts to fossil resources under the No Action Alternative.

*Mitigation:* 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear to be of noteworthy scientific interest
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

## **RANGELAND MANAGEMENT**

*Affected Environment:* The project is within the Evacuation Creek allotment which runs cattle in a year round operation on the public lands. The Whiskey Creek area is used either during the spring or fall depending on the rotation cycle.

*Environmental Consequences of the Proposed Action:* If construction of the pipeline occurs during the summer or winter impacts to the livestock operation would be minimized. If construction occurs during the period livestock are using the project area, and the mitigation measures are adhered to, impacts are expected to be minimized.

*Environmental Consequences of the No Action Alternative:* There would be no impacts.

*Mitigation:* If livestock are present open trench will be minimized to that area on which pipe placement is imminent.

## **REALTY AUTHORIZATIONS**

*Affected Environment:* The proposed pipeline and access road will be in an area known as Whiskey Creek.

*Environmental Consequences of the Proposed Action:* There is an existing pipeline issued to Canyon Gas (COC25122BR) that was issued in 1981 and there are no other rights-of-way in this area. A record search showed that a right-of-way doesn't exist for the Whiskey Creek Road and there wasn't a cultural clearance in the file for the pipeline. The pipeline for Pioneer (COC68657) and the access road (COC67528) will be amendments to existing rights-of-way.

*Environmental Consequences of the No Action Alternative:* None

*Mitigation:* Construction methods for the pipeline and access road will be done in accordance with the Gold Book Standards and stipulations as specified in the right-of-way manual.

## VISUAL RESOURCES

*Affected Environment:* The proposed action would be located in an area with VRM II and VRM III classifications. The objective of the VRM II class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. The objective of the VRM III class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

*Environmental Consequences of the Proposed Action:* The proposed action would be adjacent to the proposed access road, and would not be visible to the casual observer traveling along the nearest public route which would be Evacuation Creek. Much of the proposed action would be either on private surface or access on the access road is through private lands. By painting all above ground facilities Juniper green to blend with and mimic the surrounding vegetation, the level of change to the characteristic landscape would be low, and the standards of the VRM II & VRM III classifications would be retained.

*Environmental Consequences of the No Action Alternative:* There would be no impacts.

*Mitigation:* All permanent (onsite for six [6] months or longer) structures, facilities and equipment placed above ground shall be painted Juniper Green within six months of installation.

**CUMULATIVE IMPACTS SUMMARY:** This action is consistent with the scope of impacts addressed in the White River ROD/RMP. The cumulative impacts of these activities are addressed in the White River ROD/RMP for each resource value that would be affected by the proposed action.

## REFERENCES CITED:

Baer, Sarah, Heidi Guy Hays and Michael Retter

2005 Class III Cultural Resource Inventory of the Hazzard #6-1 Well Pad and Access Road, Rio Blanco and Garfield Counties, Colorado. SWCA Environmental Consultants, Broomfield, Colorado.

Tweto, Ogden

1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

**PERSONS / AGENCIES CONSULTED:** None

**INTERDISCIPLINARY REVIEW:**

<b>Name</b>	<b>Title</b>	<b>Area of Responsibility</b>
Nate Dieterich	Hydrologist	Air Quality
Tamara Meagley	Natural Resource Specialist	Areas of Critical Environmental Concern
Tamara Meagley	Natural Resource Specialist	Threatened and Endangered Plant Species
Michael Selle	Archeologist	Cultural Resources Paleontological Resources
Robert Fowler	Rangeland Management Specialist	Invasive, Non-Native Species
Lisa Belmonte	Wildlife Biologist	Migratory Birds
Lisa Belmonte	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species, Wildlife
Melissa Kindall	Hazmat Collateral	Wastes, Hazardous or Solid
Nate Dieterich	Hydrologist	Water Quality, Surface and Ground Hydrology and Water Rights
Lisa Belmonte	Wildlife Biologist	Wetlands and Riparian Zones
Chris Ham	Outdoor Recreation Planner	Wilderness
Nate Dieterich	Hydrologist	Soils
Robert Fowler	Rangeland Management Specialist	Vegetation
Lisa Belmonte	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Chris Ham	Outdoor Recreation Planner	Access and Transportation
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Robert Fowler	Rangeland Management Specialist	Rangeland Management
Penny Brown	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Recreation
Keith Whitaker	Natural Resource Specialist	Visual Resources
Valerie Dobrich	Natural Resource Specialist	Wild Horses

# **Finding of No Significant Impact/Decision Record (FONSI/DR)**

## **CO-110-2005-213-EA**

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE:** The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

**DECISION/RATIONALE:** It is my decision to approve the construction of the pipeline connection and access road as described in the proposed action, with the mitigation measures listed below. This development, with mitigation, is consistent with the decisions in the White River ROD/RMP, and environmental impacts will be minimal.

### **MITIGATION MEASURES:**

1. The operator will be responsible for complying with all local, state, and federal air quality regulations as well as provide documentation to the BLM that they have done so prior to construction on BLM lands.
2. All stockpiled soils on BLM surfaces will be wetted (during dry periods) to mitigate production of fugitive dust. BLM surfaces disturbed during construction will be promptly revegetated. Adequate ground cover (e.g. woody debris) must be applied immediately (BLM lands) to minimize surface exposure to eolian processes.
3. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:
  - whether the materials appear eligible for the National Register of Historic Places
  - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
  - a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

4. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

5. The applicant is responsible for inventorying, treating and monitoring noxious weed outbreaks associated with this proposal.

6. No operations using chemical processes or other pollutants in their activities will be allowed to occur within 200 feet of any water bodies.

7. Surface disturbing activities would be required to avoid riparian/wetland habitat.

8. Locate and maintain sanitation facilities according to state regulations.

9. When preparing the site, all suitable topsoil should be stripped from the surface of the location and stockpiled for reclamation once the location is abandoned. When topsoil is stockpiled on slopes exceeding five percent, construct a berm or trench below the stockpile.

10. Sedimentation shall be diverted and/or run through catchment basins in order to protect surface waters.

11. All sediment control structures or disposal pits, will be designed to contain a 100-year, 6-hour storm event. Storage volumes within these structures will have a design life of 25 years.

12. All activity shall cease when soils or road surfaces become saturated to a depth of three inches unless otherwise approved by the Authorized Officer.

13. There shall be no mud blading of roads. Vehicles may be towed through the mud provided they stay within the original roadway.

14. Special design and reclamation measures may be required to protect scenic and natural landscape values. These design and measures may include transplanting trees and shrubs, mulching and fertilizing disturbed areas, use of low profile permanent facilities, and painting to minimize visual contrasts. Surface disturbing activities may be moved up to 200 meters to avoid sensitive areas or to reduce the visual affects of the proposal. These measures would be applied to the following VRM Class II and III areas: Canyon Pintado National Historic District; Highways 13, 40, 64, and 139 corridors; Viewsheds in the Blue Mountain/ Moosehead GRA;



White River Corridor; Douglas and Baxter Pass divide; Cathedral Bluffs; and VRM Class II areas around Meeker. These measures may also be applied to other areas on a case-by-case basis.

15. All above ground facilities shall be painted to blend in with the surrounding environment.

16. All disturbed areas will be contoured to blend with the natural topography. Blending is defined as reducing form, line, and color contrast associated with the surface disturbance. In visually sensitive areas and WSAs, all disturbed areas shall be contoured to match the original topography. Matching is defined as reproducing the original topography and eliminating form, line, and color caused by the disturbance as much as possible.

17. Base road design criteria and standards on road management objectives such as traffic requirements of the proposed activity and the overall transportation plan, economic analysis, safety requirements, resource objectives, and minimizing damage to the environment.

18. Locate roads so as to minimize their influence on riparian areas and, when stream crossing is necessary, design the approach and crossing perpendicular to the channel. Locate the crossing where the channel is well-defined, unobstructed and straight.

19. Locate roads on stable positions (e.g., ridges, natural benches, and flatter transitional slopes near ridges and valley bottoms). Implement extra mitigation measures when crossing areas of unstable or fragile soils.

20. Avoid headwalls, midslope locations on steep, unstable slopes, seeps, old landslides, slopes in excess of 70 percent, and areas where the geologic bedding planes or weathering surfaces are inclined with the slope.

21. Locate roads to minimize heights of cutbanks. Avoid high, steeply sloping cutbanks in highly fractured bedrock.

22. Locate roads on well-drained soil types. Avoid wet areas.

23. Sloping the road base to the outside edge for surface drainage is normally recommended for local spurs or minor collector roads where low-volume traffic and lower traffic speeds are anticipated. This is also recommended in situations where long intervals between maintenance will occur and where minimum excavation is wanted. Outsloping is not recommended on gradients greater than eight to 10 percent.

24. Sloping the road base to the inside edge is an acceptable practice on roads with gradients more than 10 percent and where the underlying soil formation is very rocky and not subject to appreciable erosion or failure.

25. Crown and ditching is recommended for arterial and collector roads where traffic volume, speed, intensity and user comfort are considerations. Gradients may range from two to 15 percent as long as adequate drainage away from the road surface and ditchlines is maintained.

26. Minimize excavation through use of balanced earthwork, narrowing road width, and endhauling where slopes are greater than 60 percent.
27. Surface roads if they will be subject to traffic during wet weather. The depth and gradation of surfacing will be determined by traffic type, frequency, weight, maintenance objectives, and the stability and strength of the road foundation and surface materials.
28. Provide vegetative or artificial stabilization of cut and fill slopes in the design process. Avoid establishment of vegetation where it inhibits drainage from the road surface or where it restricts safety or maintenance.
29. When roads are located in low-lying areas, ensure that the road surface is constructed above the adjacent ground surface.
30. Avoid sidecasting where it will adversely affect water quality or weaken stabilized slopes.
31. Provide for erosion-resistant surface drainage prior to fall rain or snow.
32. Improve flat gradients to a minimum of two percent or provide raised subgrade sections to avoid saturation of the road base.
33. Reconstruct culvert catchbasins to specifications (See BLM Manual IX.D and F). Catchbasins in solid rock need not be reconstructed provided water flow is not restricted by soil, rock, or other debris.
34. Identify potential water problems caused by off-site disturbance and add necessary drainage facilities.
35. Identify ditchline and outlet erosion caused by excessive flows and add necessary drainage facilities and armoring.
36. Replace undersized culverts and repair or replace damaged culverts and downspouts.
37. Add additional full-rounds, half-rounds, and energy dissipators as needed.
38. Correct special drainage problems (e.g., high water table, seeps) that affect stability of subgrade by using perforated drains, geotextiles, or drainage bays.
39. Eliminate undesirable berms that retard normal surface runoff.
40. Surface inadequately surfaced roads that are to be left open to public traffic during wet weather.
41. Roadside brushing should be done in a way that prevents disturbance to root systems (i.e., avoid using excavators for brushing).

42. Leave abandoned roads in a condition that provides adequate drainage without further maintenance.
43. Close abandoned roads to traffic. Physically obstruct the road with a gate or as many large berms, trenches, logs, stumps, or rock boulders as necessary to accomplish permanent closure.
44. When seasonal activity is completed and road closure is not necessary, the road surface should be crowned, outsloped, insloped, or water-barred.
45. Remove berms from the outside edge of road where runoff is channeled.
46. Maintenance should be performed to conserve existing surface material, retain the original crowned or outsloped self-draining cross section, prevent or remove rutting berms (except those designed for slope protection) and other irregularities that retard normal surface runoff. Avoid wasting loose ditch or surface material over the shoulder where it can cause stream sedimentation or weaken slump-prone areas. Avoid undercutting backslopes.
47. Promptly remove slide material when it is obstructing road surface and ditchline drainage. Save all soil or material useable for reclamation and stockpile for future reclamation needs. Use remaining slide material for needed road improvement or place in a stable waste area. Avoid sidecasting of slide material where it can damage, overload, saturate embankments, or flow into downslope drainage courses. Reestablish vegetation in areas where more than 50 percent of vegetation has been destroyed due to sidecasting.
48. Construction width shall include the existing road. The pipeline shall be located two to three feet from the edge of the ditch along the existing road. The existing road shall be on the working side of the trench.
49. Right-of-ways will use areas adjoining or adjacent to previously disturbed areas whenever possible, rather than traverse undisturbed communities.
50. The pipeline will be buried to provide a minimum cover of 36 inches through normal terrain. The pipeline will be buried deep enough to avoid problems with irrigation ditches, canals, potential irrigation areas and existing pipelines, as designated by the authorized officer. In rocky areas, a minimum cover of 24 inches will be provided. In areas next to or crossing access roads, the pipeline shall be buried with a minimum of four feet of cover in alluvial areas and three feet of cover in rocky areas.
51. Water bars or dikes shall be constructed on all of the rights-of-way, and across the full width of the disturbed area, as directed by the authorized officer.
52. Slopes within the disturbed area shall be stabilized by non-vegetative practices designed to hold the soil in place and minimize erosion. Vegetative cover shall be reestablished to increase infiltration and provide additional protection from erosion.

53. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff.

54. Seed species used in reseeding disturbed areas will be based on the seed mixes identified in table B1 and B2. These mixes are based on Ecological Sites as determined by soils. Only native plant species will be used for reseeding of disturbed areas within the Blue Mountain/Moosehead Geographic Reference Area, Wilderness study Areas, and within designated Areas of Critical Environmental Concern. Native plant species would be strongly encouraged in the remainder of the Resource Area for reseeding disturbed areas that are not threatened by establishment of exotic or noxious plant species. Naturalized plant species will be allowed for reseeding on "at risk" and "unhealthy" rangelands and grazable woodlands.

56. Leave the disturbed area in a condition that provides drainage with no additional maintenance.

57. The following seed mixture will be used:

**Table B-1. Standard Seed Mixes**

Seed Mix #	Species (Variety)	Lbs PLS/ Acre	Ecological Sites
4	Western wheatgrass (Rosanna)	2	Gravelly 10"-14", Pinyon/Juniper Woodland, Stony Foothills, 147 (Mountain Mahogany)
	Pubescent wheatgrass (Luna)	3	
	Crested wheatgrass (Nordan)	2	
	Orchardgrass (Paiute)	1	
	Indian ricegrass (Nezpar)	1	
	Fourwing saltbush (Wytana)	1	
	Alternates: Alfalfa (Nomad or Ladak)		

58. The applicant shall be required to collect and properly dispose of any solid wastes would be generated under the no action alternative.

59. All BLM surfaces disturbed during construction will be promptly revegetated and adequate ground cover must be immediately applied to minimize erosion. The use of biodegradable fabric (e.g. jute) may be necessary to stabilize certain areas highly susceptible to erosion.

60. All upgrades to the existing BLM road will strictly adhere to the surface operating standards and guidelines for oil and gas exploration and development as outlined in the "Gold Book" 2005 fourth edition. Any upgrades/repairs to the ROW will be upgraded or repaired at the expense of the operator.

61. To mitigate contamination of local ground water, environmentally unfriendly substances (e.g. diesel) must not be allowed to infiltrate soils. The use of impermeable matting under equipment is suggested on BLM surfaces to intercept such contaminants prior to contacting soils.

62. Comply with "Gold Book" surface operating standards for road upgrades and pipeline construction. Revegetate all disturbed BLM surfaces following construction with the appropriate

seed mix as outline in Stipulation #57. Flow deflectors and sediment traps (woody debris) must also be utilized on BLM lands in attempts to mitigate erosive potential of overland flows.

63. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear to be of noteworthy scientific interest
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

64. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

65. If livestock are present open trench will be minimized to that area on which pipe placement is imminent.

66. All permanent (onsite for six (6) months or longer) structures, facilities and equipment placed above ground shall be painted Juniper Green within six months of installation.

67. Comply with “Gold Book” surface operating standards for road upgrades and pipeline construction. Any surface disturbing activities located on CSU-1 “fragile soils” will require an engineered construction/reclamation plan to be submitted by the operator and approved by the Area Manager. The following items must be addressed in the plan:

1. How soil productivity will be restored.
2. How surface runoff will be treated to avoid accelerated erosion such as riling, gullyng, piping, and mass wasting.

**COMPLIANCE/MONITORING:** Compliance will be conduct every five years by the realty staff.

**NAME OF PREPARER:** Penny Brown

**NAME OF ENVIRONMENTAL COORDINATOR:** Caroline Hollowed

**SIGNATURE OF AUTHORIZED OFFICIAL:**

  
Field Manager

**DATE SIGNED:** 11/16/05

**ATTACHMENTS:** Location map of the Proposed Action.

**CO-110-2005-213-EA**

